

**We claim:**

1. A version control system for managing versioned files comprising:
  - a) a central server storing a repository of said versioned files;
  - b) at least one proxy connected to said central server; each proxy including a read-only cache for storing data from said repository;
  - c) at least one client connected to each of said proxies;wherein modifications to said versioned files may only be made by said central server.
2. A version control system according to claim 1, wherein said central server includes a list of proxies for each branch in the version control system and an update informer to notify each proxy in the list when a change is made to each branch.
3. A version control system according to claim 1, wherein said central server includes an access control system to validate requests received by said central server.
4. A version control system according to claim 1, wherein said client obtains versions of files by requesting them from the corresponding proxy, and the proxy provides the version from its read-only cache when available and by requesting the version from the central server otherwise.
5. A version control system according to claim 1, wherein said proxy includes a mechanism for providing versions of files to connected clients using said read-only cache when the desired version is available and requesting the version from the central server otherwise.
6. A version control system according to claim 1, wherein the clients modify the repository through said central server.
7. A version control system according to claim 6, wherein the central server includes a checkout mechanism for controlling modification to the repository.

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2 8. A version control system according to claim 7, wherein the central server includes a log  
3 of changes made to the repository.  
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5 9. A version control system, according to claim 8, wherein the log is used to update a proxy  
6 after a disruption to the connection between the proxy and the central server.  
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8 10. A version control system according to claim 1, wherein a regional proxy is connected to  
9 said central server and to a plurality of proxy server in a geographic area, each of the plurality of  
10 proxy servers being connected to at least one client wherein updates from the central server to  
11 the plurality of proxy servers are first sent to the regional proxy.  
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13 11. A method of modifying a repository of versions of files in a version control system  
14 including a central server and a client, said method comprising the steps of:

- 15 a) the client requesting from the central server a lock on a version of a file in the version  
16 control system;  
17 b) the central server checking whether the requested version is unlocked, and if so  
18 granting the request; and  
19 c) the central server sending an update to other portions of the system.  
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21 12. A method according to claim 11, wherein said lock prevents other clients from modifying  
22 said version of said file.  
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24 13. A method according to claim 11, further comprising the step of said client modifying said  
25 version and returning the modification to said central server.  
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27 14. A method according to claim 13, further comprising the step of said central server  
28 sending said modification to other portions of the system.  
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1 15. A central server in a version control system including proxy servers connected to clients  
2 comprising:

- 3 a) a repository of versioned files;
- 4 b) a version manager for providing versions of files from said repository;
- 5 c) an access control system for managing requests from clients to modify the repository;
- 6 d) a log of changes made to the repository;
- 7 e) a list of connected proxies and portions of said repository, the proxies containing read-  
8 only caches of said portions of said repository for providing versions of files to said clients.

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10 16. A central server according to claim 15, wherein said log is used to update one of said  
11 read-only caches in a respective proxy after a disruption to the connection between said  
12 respective proxy and said central server

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14 17. A proxy server in a version control system including a central server containing a  
15 repository of versioned files and a client, said proxy server comprising:

- 16 a) a read-only cache for storing data from said repository; and
- 17 b) a version provider to provide a version of a file to said client, the version provider  
18 being configured to first check the read-only cache for the requested version and if it is  
19 not found, to request the version from said central server.

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21 18. A proxy server according to claim 17, wherein the read-only cache is configured to store  
22 copies of version requested from said central server.

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24 19. A computer readable medium containing processor instructions for implementing a  
25 version control system including:

- 26 a) a central server storing a repository of versioned files;
- 27 b) at least one proxy connected to said central server; each proxy including a read-  
28 only cache for storing data from said repository;
- 29 c) at least one client connected to each of said proxies;
- 30 wherein modifications to said versioned files may only be made by said central server.

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2 20. A computer readable medium according to claim 19, further comprising instructions to  
3 maintain a list of proxies for each branch in the version control system and notify each proxy in  
4 the list when a change is made to each branch.  
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6 21. A computer readable medium according to claim 19, wherein said central server includes  
7 an access control system to validate requests received by said central server.  
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9 22. A computer readable medium according to claim 19, wherein said client obtains versions  
10 of files by requesting them from the corresponding proxy, and the proxy provides the version  
11 from its read-only cache when available and by requesting the version from the central server  
12 otherwise.  
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14 23. A computer readable medium according to claim 19, wherein said proxy includes a  
15 mechanism for providing versions of files to connected clients using said read-only cache when  
16 the desired version is available and requesting the version from the central server otherwise.  
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18 24. A computer readable medium according to claim 19, wherein the clients modify the  
19 repository through said central server.  
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21 25. A computer readable medium according to claim 24, wherein the central server includes a  
22 checkout mechanism for controlling modification to the repository.  
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24 26. A computer readable medium according to claim 25 wherein the central server includes a  
25 log of changes made to the repository.  
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27 27. A computer readable medium, according to claim 26, wherein the log is used to update a  
28 proxy after a disruption to the connection between the proxy and the central server.  
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2 28. A computer readable medium according to claim 19, wherein a regional proxy is  
3 connected to said central server and to a plurality of proxy server in a geographic area, each of  
4 the plurality of proxy servers being connected to at least one client wherein updates from the  
5 central server to the plurality of proxy servers are first sent to the regional proxy.